

WHAT IS CLAIMED IS:

1. A map evaluation system comprising:

a map database storing a road map;

map collating means for determining, by collating a road location with a vehicle position path, whether a difference is present between the vehicle position path and the road location and for then generating difference information indicating a location of the difference when the difference is determined to be present, wherein the vehicle position path is detected by a vehicle position detecting unit while the road location is indicated on the road map corresponding to the vehicle position path;

difference accuracy information obtaining means for obtaining accuracy information used for determining degree of accuracy for the difference information;

difference accuracy determining means for executing determination of the degree of accuracy for the difference information based on the accuracy information;

map evaluating means for executing evaluation of degree of credibility for a portion of the road map based on a result of determination of the degree of accuracy executed by the difference accuracy determining means, wherein the portion of the road map corresponds to the location of the difference; and

outputting means for outputting a result of the evaluation of the degree of credibility executed by the map evaluating means.

2. The map evaluation system of Claim 1,

wherein the collating means determines, by collating the road location with the vehicle position path, whether the vehicle position path is present on the location where no road is indicated on the road map and generates the difference information indicating the location when the vehicle position path is determined to be present on the location where no road is indicated on the road map.

3. The map evaluation system of Claim 1,

wherein, when the map evaluating means executes the evaluation that the degree of credibility for the portion of the road map is equal to a given degree or below, the outputting means outputs, as the result of the evaluation, the difference information.

4. The map evaluation system of Claim 1, further comprising:

evaluation result storing means for storing the result of the evaluation executed by the map evaluating means,

wherein the map evaluating means executes the evaluation of the degree of credibility for the portion of the road map based on the result of the determination of the degree of accuracy executed by the difference accuracy determining means and a history of the result of the evaluation stored by the evaluation result storing means.

5. The map evaluation system of Claim 4,

wherein, when the difference accuracy determining means executes the determination that the degree of accuracy for the difference information is a proper degree, the map evaluating means lowers the degree of credibility for the portion of the road map from a degree of credibility for the portion of the road map included in a previous result of the evaluation that is stored by the evaluation result storing means.

6. A collation device comprising:

map collating means for determining, by collating a road location with a vehicle position path, whether a difference is present between the vehicle position path and the road location and for then generating difference information indicating a location of the difference when the difference is determined to be present, wherein the vehicle position path is detected by a vehicle position detecting unit while the road location is indicated on a road map that is stored in a map database and corresponds to the vehicle position path;

difference accuracy information obtaining means for obtaining accuracy information used for determining degree of accuracy for the difference information; and

transmitting means for transmitting the difference information and the accuracy information to an outside device.

7. The collation device of Claim 6,

wherein the collating means determines, by collating the

road location with the vehicle position path, whether the vehicle position path is present on the location where no road is indicated on the road map and generates the difference information indicating the location when the vehicle position path is determined to be present on the location where no road is indicated on the road map.

8. The collation device of Claim 6,

wherein the accuracy information obtaining means obtains the accuracy information that includes information relating to degree of accuracy of position detection of the vehicle position detecting unit.

9. The collation device of Claim 6,

wherein the map database is internally included, and

wherein the accuracy information obtaining means obtains the accuracy information that includes version information indicating a version of the map database.

10. The collation device of Claim 6,

wherein the map database is internally included, and

wherein the accuracy information obtaining means obtains the accuracy information that includes information relating to degree of accuracy of position detection of the vehicle position detecting unit and version information indicating a version of the map database.

11. A map evaluation device capable of being communicated with a collation device that includes:

map collating means for determining, by collating a road location with a vehicle position path, whether a difference is present between the vehicle position path and the road location and for then generating difference information indicating a location of the difference when the difference is determined to be present, wherein the vehicle position path is detected by a vehicle position detecting unit while the road location is indicated on a road map that is stored in a map database and corresponds to the vehicle position path;

difference accuracy information obtaining means for obtaining accuracy information used for determining degree of accuracy for the difference information; and

transmitting means for transmitting the difference information and the accuracy information to an outside device,

the map evaluation device comprising:

receiving means for receiving the difference information and the accuracy information transmitted by the collation device;

difference accuracy determining means for executing determination of the degree of accuracy for the difference information based on the accuracy information;

map evaluating means for executing evaluation of degree of credibility for a portion of the road map based on a result of determination of the degree of accuracy executed by the difference accuracy determining means, wherein the portion of

the road map corresponds to the location of the difference indicated by the difference information; and

outputting means for outputting a result of the evaluation of the degree of credibility executed by the map evaluating means.

12. The map evaluation device of Claim 11,

wherein, when the map evaluating means executes the evaluation that the degree of credibility for the portion of the road map is equal to a given degree or below, the outputting means outputs, as the result of the evaluation, the difference information.

13. The map evaluation device of Claim 11, further comprising:

evaluation result storing means for storing the result of the evaluation executed by the map evaluating means,

wherein the map evaluating means executes the evaluation of the degree of credibility for the portion of the road map based on the result of the determination of the degree of accuracy executed by the difference accuracy determining means and a history of the result of the evaluation stored by the evaluation result storing means.

14. The map evaluation device of Claim 13,

wherein, when the difference accuracy determining means executes the determination that the degree of accuracy for the

difference information is a proper degree, the map evaluating means lowers the degree of credibility for the portion of the road map from a degree of credibility for the portion of the road map included in a previous result of the evaluation that is stored by the evaluation result storing means.

15. A map evaluation device capable of being communicated with a collation device that includes:

map collating means for determining, by collating a road location with a vehicle position path, whether a difference is present between the vehicle position path and the road location and for then generating difference information indicating a location of the difference when the difference is determined to be present, wherein the vehicle position path is detected by a vehicle position detecting unit while the road location is indicated on a road map that is stored in a map database and corresponds to the vehicle position path;

difference accuracy information obtaining means for obtaining accuracy information used for determining degree of accuracy for the difference information; and

transmitting means for transmitting the difference information and the accuracy information to an outside device,

wherein the accuracy information obtaining means obtains the accuracy information that includes information relating to degree of accuracy of position detection of the vehicle position detecting unit,

the map evaluation device comprising:

receiving means for receiving the difference information and the accuracy information transmitted by the collation device;

difference accuracy determining means for executing determination of the degree of accuracy for the difference information based on the accuracy information;

map evaluating means for executing evaluation of degree of credibility for a portion of the road map based on a result of determination of the degree of accuracy executed by the difference accuracy determining means, wherein the portion of the road map corresponds to the location of the difference indicated by the difference information;

outputting means for outputting a result of the evaluation of the degree of credibility executed by the map evaluating means; and

evaluation result storing means for storing the result of the evaluation executed by the map evaluating means,

wherein the map evaluating means executes the evaluation of the degree of credibility for the portion of the road map based on the result of the determination of the degree of accuracy executed by the difference accuracy determining means and a history of the result of the evaluation stored by the evaluation result storing means,

wherein, when the difference accuracy determining means executes the determination that the degree of accuracy for the difference information is a proper degree, the map evaluating means lowers the degree of credibility for the portion of the

road map from a degree of credibility for the portion of the road map included in a previous result of the evaluation that is stored by the evaluation result storing means,

wherein the difference accuracy determining means determines whether the degree of position detection of the position detecting unit is equal to a given degree or above based on the accuracy information, and

wherein, when the degree of position detection is determined to be the given degree or above, the difference accuracy determining means determines that the degree of accuracy for the difference information is the proper degree.

16. A map evaluation device capable of being communicated with a collation device that includes:

map collating means for determining, by collating a road location with a vehicle position path, whether a difference is present between the vehicle position path and the road location and for then generating difference information indicating a location of the difference when the difference is determined to be present, wherein the vehicle position path is detected by a vehicle position detecting unit while the road location is indicated on a road map that is stored in a map database and corresponds to the vehicle position path;

difference accuracy information obtaining means for obtaining accuracy information used for determining degree of accuracy for the difference information; and

transmitting means for transmitting the difference

information and the accuracy information to an outside device,

wherein the map database is internally included in the collation device, and

wherein the accuracy information obtaining means obtains the accuracy information that includes version information indicating a version of the map database,

the map evaluation device comprising:

receiving means for receiving the difference information and the accuracy information transmitted by the collation device;

difference accuracy determining means for executing determination of the degree of accuracy for the difference information based on the accuracy information;

map evaluating means for executing evaluation of degree of credibility for a portion of the road map based on a result of determination of the degree of accuracy executed by the difference accuracy determining means, wherein the portion of the road map corresponds to the location of the difference indicated by the difference information;

outputting means for outputting a result of the evaluation of the degree of credibility executed by the map evaluating means; and

evaluation result storing means for storing the result of the evaluation executed by the map evaluating means,

wherein the map evaluating means executes the evaluation of the degree of credibility for the portion of the road map based on the result of the determination of the degree of

accuracy executed by the difference accuracy determining means and a history of the result of the evaluation stored by the evaluation result storing means,

wherein, when the difference accuracy determining means executes the determination that the degree of accuracy for the difference information is a proper degree, the map evaluating means lowers the degree of credibility for the portion of the road map from a degree of credibility for the portion of the road map included in a previous result of the evaluation that is stored by the evaluation result storing means,

wherein the difference accuracy determining means determines whether the version of the map database is latest based on the accuracy information, and

wherein, when the version of the map database is determined to be latest, the difference accuracy determining means determines that the degree of accuracy for the difference information is the proper degree.

17. A map evaluation device capable of being communicated with a collation device that includes:

map collating means for determining, by collating a road location with a vehicle position path, whether a difference is present between the vehicle position path and the road location and for then generating difference information indicating a location of the difference when the difference is determined to be present, wherein the vehicle position path is detected by a vehicle position detecting unit while the road location is

indicated on a road map that is stored in a map database and corresponds to the vehicle position path;

difference accuracy information obtaining means for obtaining accuracy information used for determining degree of accuracy for the difference information; and

transmitting means for transmitting the difference information and the accuracy information to an outside device,

wherein the map database is internally included in the collation device, and

wherein the accuracy information obtaining means obtains the accuracy information that includes version information indicating a version of the map database and information relating to degree of accuracy of position detection of the vehicle position detecting unit,

the map evaluation device comprising:

receiving means for receiving the difference information and the accuracy information transmitted by the collation device;

difference accuracy determining means for executing determination of the degree of accuracy for the difference information based on the accuracy information;

map evaluating means for executing evaluation of degree of credibility for a portion of the road map based on a result of determination of the degree of accuracy executed by the difference accuracy determining means, wherein the portion of the road map corresponds to the location of the difference indicated by the difference information;

outputting means for outputting a result of the evaluation of the degree of credibility executed by the map evaluating means; and

evaluation result storing means for storing the result of the evaluation executed by the map evaluating means,

wherein the map evaluating means executes the evaluation of the degree of credibility for the portion of the road map based on the result of the determination of the degree of accuracy executed by the difference accuracy determining means and a history of the result of the evaluation stored by the evaluation result storing means,

wherein, when the difference accuracy determining means executes the determination that the degree of the accuracy for the difference information is a proper degree, the map evaluating means lowers the degree of credibility for the portion of the road map from a degree of credibility for the portion of the road map included in a previous result of the evaluation that is stored by the evaluation result storing means,

wherein the difference accuracy determining means determines whether the version of the map database is latest and whether the degree of position detection of the position detecting unit is equal to a given degree or above based on the accuracy information, and

wherein, when the version of the map database is determined to be latest and the degree of position detection is determined to be the given degree or above, the difference

accuracy determining means determines that the degree of accuracy for the difference information is the proper degree.